

REMARKS

Reconsideration and withdrawal of the rejections made in the instant Office Action are respectfully requested, in view of the following remarks.

Summary of Office Action

As an initial matter, Applicant notes with appreciation that the claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f) and receipt of the certified copies of the priority documents have been acknowledged in the present Office Action. The Examiner is also thanked for returning a signed and initialled copy of the Form PTO-1449 submitted in the Information Disclosure Statement filed November 16, 2001.

Claims 10 and 25 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by KIM et al. (U.S. Patent No. 5,432,213).

Claims 11-15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT (U.S. Patent No. 4,145,154).

Claims 16-19 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT, and further in view of HENDRIKS et al. (U.S. Patent No. 5,910,212).

Claims 20-24 (and, possibly, also claims 26 and 27) are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT, and further in

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view of LANGUMIER et al. (U.S. Patent No. 5,256,712).

Claim 28 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of ULRICH et al. (U.S. Patent No. 5,735,634).

Claim 29 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of ULRICH et al., and further in view of HENDRIKS et al.

Response to Office Action

Reconsideration and withdrawal of the rejections of record are respectfully requested.

Response to Rejection of Claims 10 and 25 under 35 U.S.C. § 102(b) over KIM et al.

Claims 10 and 25 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by KIM et al. The rejection asserts that KIM et al. in col. 3, lines 5-42, and col. 4, lines 19-63, discloses a bituminous draining road blanket comprising an upper layer (1) having a modified bituminous binder, aggregate of a first particle size distribution, such as crushed stone, and a filler material in an amount of 1-20 % by weight, as well as a lower layer comprising a bituminous binder and aggregate of a second particle size which is larger than the first particle size.

Applicant respectfully submits that it appears that the Examiner has overlooked the fact that, contrary to what is stated in the present Office Action, the upper layer (1) of the

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bituminous draining road blanket of KIM et al. does not comprise any (modified) bituminous binder. Instead, the upper layer (1) as shown in Figures 1 and 2 of Kim et al. contains thermosetting resin, examples whereof are given, for example, in claim 4 of this document, as well as botanical fibrous cellulose or its derivatives (see, e.g., claim 1) as an additive of the thermosetting resin. In fact, KIM et al. does not even mention bitumen, let alone modified bitumen. For this reason alone, the rejection of claims 10 and 25 as anticipated by KIM et al. is unfounded. In addition, Applicant notes that it is not completely clear whether the particle size distribution of the upper layer (1) of the road blanket of KIM et al. indeed is smaller than the particle size distribution of the underlying layer (3) thereof, as also alleged in the rejection.

In view of the foregoing, KIM et al. cannot be considered to anticipate any of the claimed subject matter. Accordingly, Applicant respectfully requests that the rejection of claims 10 and 25 under 35 U.S.C. § 102(b) be withdrawn.

Response to Rejection of Claims 11-15 under 35 U.S.C. § 102(a) over KIM et al. in view of MINGOT

Claims 11-15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT. The rejection contends that KIM et al. discloses essentially all that is claimed, except for the aggregate size ratio between upper and lower layers. The rejection further alleges that MINGOT teaches in columns 2-4 thereof a non-skid

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highway comprising first and second layers of asphaltic concrete, wherein the aggregate particle size is in the range of 12.5-14 mm corresponding to a 10/14 size distribution, and wherein the aggregate particle size of the second layer is in the range of sand, allegedly known to have a 0/2-0/6 size distribution, and stone chips in the range of 2/6. The Examiner asserts that it would have been obvious to one of skill in the art to provide the water-permeable roadway of KIM et al. with a plurality of layers having a discontinuity in particle size distribution in the range 3:1-4:1 as allegedly taught by MINGOT, in order to maximize the permeability of the roadway and to minimize reducing resistance to wear.

With respect to claim 13, the Office Action acknowledges that neither KIM et al. nor MINGOT specifically recites using 95 % aggregate in the 4/6 range. However, the rejection alleges that MINGOT teaches spreading separate layers of paving material, each having a different grading or granularity, for example, 4/6 mm, 6/10 mm or 10/14 mm (col. 1, lines 1-20), and concludes that hence, MINGOT allegedly contemplates forming at least one layer of paving material having a grading in the 4/6 range. The Examiner takes the position that, therefore, it would allegedly have been obvious to one of ordinary skill in the art to provide the roadway of KIM et al. with at least one layer of paving material in the 4/6 range in order to maximize water permeability.

With respect to claim 15, the rejection alleges that MINGOT discloses that the first layer comprises only particles in the 10/14 range and that, therefore, it would have been

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obvious to provide the roadway of KIM et al. with a first layer of paving material of 10/14 size aggregate in order to maximize the void content of the pavement.

Applicant notes that, as discussed above, the Examiner's assessment of KIM et al. is incorrect, and for this reason alone, the present rejection is apparently unfounded. In particular, the upper layer of KIM et al. does not have a bituminous binder, but instead contains a thermosetting resin, which apparently is not in conformity with the teaching of MINGOT (and the present claims). Accordingly, by combining the teachings of KIM et al. and MINGOT one would not arrive at the present invention. Moreover, due to, in particular, the difference in the binder for the upper layer, one of ordinary skill in the art would not even have been motivated to combine the teachings of KIM et al. and MINGOT. In addition, it is emphasized that the particle size distribution in the lower layer of the non-skid highway of MINGOT apparently is smaller than the particle size distribution of the upper layer thereof (see, e.g., col. 2, lines 59-64, and claim 1 of MINGOT, particularly last paragraph thereof), which again is contrary to not only to the present claims, but also to the teaching of KIM et al., if one assumed, *arguendo*, that the Examiner is correct in asserting that the particle size distribution of the upper layer (1) of the road blanket of KIM et al. is smaller than the particle size distribution of the underlying layer (3) thereof. This presumed difference in the location of the small and large particles between KIM et al. and MINGOT constitutes yet another reason why one of ordinary skill in the art would not have been motivated to combine KIM

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et al. and MINGOT.

In view of the foregoing, Applicant respectfully submits that the rejection of claims 11-15 under 35 U.S.C. § 103(a) is unfounded and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims 16-19 under 35 U.S.C. § 103(a) over KIM et al./MINGOT/HENDRIKS et al.

Claims 16-19 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT, as applied to claim 11, and further in view of HENDRIKS et al. The Office Action acknowledges that KIM et al. in view of MINGOT fails to disclose the void content of the roadway, but alleges that HENDRIKS et al. discloses an open graded asphalt composition having a void content ranging between 20-30 %. The Examiner takes the position that, therefore, it would allegedly have been obvious to provide the roadway of KIM et al. in view of MINGOT with a void content of 20-30 % in order to maximize the water draining characteristics of the roadway.

With respect to claim 19, the Office Action acknowledges that none of the cited references discloses the relationship between void size in the different layers, but alleges that MINGOT teaches it to be desirable to provide a large discontinuity in particle size of the aggregates in each layer and asserts that the average size in each layer will be different, i.e., larger stones allegedly only permit small size voids to form between said aggregates and,

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likewise smaller aggregates permit large size voids to form with respect to the voids of the other layer. In the Examiner's opinion it would, thus allegedly have been obvious to provide the roadway of KIM et al. with a plurality of layers having differently sized aggregates and voids as allegedly suggested by col. 1 and col. 2, line 45 to col. 3, line 65 of MINGOT.

Applicant notes that the rejection of claims 16-19 under 35 U.S.C. § 103(a) is based on a combination of the teachings of KIM et al. and MINGOT (and, in addition, that of HENDRIKS et al.). As discussed above with regard to the rejection of claims 11-15, the teachings of KIM et al. and MINGOT are not in conformity with each other, wherefore a rejection based on any combination of these two documents is without merit.

In view thereof, withdrawal of the rejection of claims 16-19 under 35 U.S.C. § 103(a) is warranted and respectfully requested.

Response to Rejection of Claims 20-24 under 35 U.S.C. § 103(a) over KIM et al./MINGOT/LANGUMIER et al.

Claims 20-24 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of MINGOT, as applied to claim 11, and further in view of LANGUMIER et al. The rejection acknowledges that KIM et al. in view of MINGOT et al. fails to disclose the type of bitumen binder used, but alleges that LANGUMIER et al. discloses a road quality bitumen comprising a bituminous binder, at least 3 % elastomer (such as SBS) and at least 30 % bitumen containing less than 6 % of saturated products and less

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than 7 % of asphaltenes. The Examiner takes the position that, therefore, it would allegedly have been obvious to provide the roadway of KIM et al. in view of MINGOT with a bituminous composition as allegedly taught in col. 2, line 45, to col. 3, line 60 of LANGUMIER et al. in order to maximize the storage ability of the elastomeric bitumen composition.

Applicant notes that the rejection of claims 20-24 under 35 U.S.C. § 103(a) is based on a combination of the teachings of KIM et al. and MINGOT (and, in addition, that of LANGUMIER et al.). As set forth above with regard to the rejection of claims 11-15, the teachings of KIM et al. and MINGOT are not in conformity with each other, wherefore a rejection based on any combination of these two documents is without merit. In view thereof, withdrawal of the rejection of claims 20-24 under 35 U.S.C. § 103(a) is warranted and respectfully requested.

Regarding claims 26 and 27, the Examiner, while not specifically rejecting these claims, asserts that KIM et al. discloses that the water-permeable roadway can be formed in a plurality of layers ranging from 0.05-3 cm for a top layer and 0.55-5.5 cm for a lower layer.

Applicant notes that a rejection of claims 26 and 27 over KIM et al., should the Examiner have intended same, would be based on the incorrect assessment of the disclosure of this document, as discussed above with respect to the rejection of claims 10 and 25. Accordingly, a rejection of claims 26 and 27 over KIM et al. would be unfounded as well.

Response to Rejection of Claim 28 under 35 U.S.C. § 103(a) over KIM et al. in view of ULRICH

Claim 28 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of ULRICH et al. The Examiner takes the position that KIM et al. discloses a process for providing a road surface with a draining bituminous blanket comprising at least two layers, a first layer allegedly comprising a modified bituminous binder, aggregate having a first particle size and 2-20 % by weight of inorganic filler, and a second layer comprising a bituminous binder and an aggregate of a particle size distribution larger than the first layer. The rejection acknowledges that KIM et al. fails to disclose how the roadway is formed, but alleges that ULRICH et al. discloses a road finisher comprising a plurality of premix hoppers 5, 6 for receiving different types of asphaltic concrete to a roadway to be paved, a plurality of conveyors (8, 9) for separately providing different types of asphaltic concrete to a roadway to be paved, such that one type of asphaltic concrete forms a first layer and the other type of said asphaltic concretes forms a second layer on top of the first layer. In the Examiner's opinion it would, therefore, allegedly have been obvious to provide the process of making a water permeable roadway of KIM et al. with a road finisher capable of spreading two layers of paving material onto a roadway, as allegedly taught by ULRICH et al., in order to pave a multi-layer roadway in one pass.

It is respectfully submitted that neither KIM et al. nor ULRICH et al. teaches or

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suggests the use of any modified bituminous binder for the upper layer of the road blanket recited in claim 28. For at least this reason the rejection of claim 28 under 35 U.S.C. § 103(a) is not tenable and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claim 29 under 35 U.S.C. § 103(a) over KIM et al. in view of ULRICH and HENDRIKS et al.

Claim 29 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over KIM et al. in view of ULRICH et al., as applied to claim 28, and further in view of HENDRIKS et al. The Examiner acknowledges that KIM et al. and ULRICH et al. fail to disclose the temperature at which the paving materials are applied to the roadway, but alleges that HENDRIKS et al. teaches an open graded asphalt that is applied to a roadway at a temperature of less than 140 degrees Celsius. In the Examiner's opinion it would, therefore, have been obvious to form the roadway of KIM et al. in view of ULRICH et al. at a temperature of less than 140 degrees Celsius in order to reduce toxic emissions and the cost of maintaining the paving material temperature.

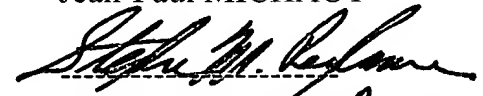
Applicant notes that claim 29 is dependent from claim 28, and that it has been set forth above why the rejection of claim 28 over KIM et al. in view of ULRICH et al. is unfounded. The rejection of claim 29 over a combination of the same documents used in the rejection of claim 28 and an additional document is necessarily unfounded as well. Accordingly, it is respectfully requested that the rejection of claim 29 under 35 U.S.C. § 103(a) be withdrawn.

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CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
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